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<u>ABSTRACT</u>

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A method and apparatus for effective through-the-earth communication involves a signal input device connected to a transmitter operating at a predetermined frequency sufficiently low to effectively penetrate useful distances through-the earth, and having an analog to digital converter receiving the signal input and passing the signal input to a data compression circuit that is connected to an encoding processor, the encoding processor output being provided to a digital to analog converter. An amplifier receives the analog output from the digital to analog converter for amplifying said analog output and outputting said analog output to an antenna. A receiver having an antenna receives the analog output passes the analog signal to a band pass filter whose output is connected to an analog to digital converter that provides a digital signal to a decoding processor whose output is connected to an data decompressor, the data decompressor providing a decompressed digital signal to a digital to analog converter. An audio output device receives the analog output form the digital to analog converter for producing audible output.